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Sustainable development: Harmony with Nature

Harmony with Nature

Report of the Secretary-General

Summary

The present report is submitted pursuant to General Assembly resolution 65/164, in which the Assembly requested the Secretary-General to convene, at its sixty-fifth session, an interactive dialogue on harmony with nature to commemorate International Mother Earth Day, on 20 April 2011, in order to actively and effectively contribute to the preparatory process for the United Nations Conference on Sustainable Development, to be held in Brazil in June 2012, and to submit a report on the subject at its sixty-sixth session. The report of the Secretary-General focuses on the evolving relationship of humankind with nature as reflected in environmental legislation and draws upon key issues discussed at the interactive dialogue. Concrete recommendations are provided to facilitate further consideration of the theme by Member States.

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I. Introduction

1. In 2010, the General Assembly, by its resolution 65/164, entitled "Harmony with Nature", requested the Secretary-General to convene, at its sixty-fifth session, an interactive dialogue, to be held at two plenary meetings in commemoration of International Mother Earth Day, on 20 April 2011, with the participation of Member States, United Nations organizations, independent experts and other stakeholders, in order to actively and effectively contribute to the preparatory process of the United Nations Conference on Sustainable Development, which is to be held in Rio de Janeiro in June 2012. The interactive dialogue of the General Assembly, with two panels of experts, addressed: (a) ways to promote a holistic approach to sustainable development in harmony with nature; and (b) sharing national experiences on criteria and indicators for measuring sustainable development in harmony with nature.[1]

2. In its resolution 65/164 the General Assembly also requested the Secretary-General to make use of the existing information portals on sustainable development maintained by the secretariat of the United Nations Conference on Sustainable Development to gather information on ideas and activities to promote the undertaking of a holistic approach to sustainable development in harmony with nature and to advance the integration of interdisciplinary scientific work, including success stories on the use of traditional knowledge, and existing national legislation, with a view to making substantive contributions to the preparatory process for the Conference and beyond. Such a portal is being developed and will be launched by June 2012.

3. As the United Nations prepares to hold the United Nations Conference on Sustainable Development (also referred to as Rio+20), from 4 to 6 June 2012, the report focuses on the historic relationships different civilizations have had with nature, as expressed, inter alia, through environmental legislation, draws upon key issues discussed at the interactive dialogue in April 2011 to advance the holistic thinking undergirding the concept of sustainable development and builds upon, and should be read in conjunction with, the first report of the Secretary-General on harmony with nature (A/65/314).

4. The promulgation of environmental legislation began in earnest in the 1960s, with greater awareness of the need for environmental protection, and increasing public interest in the environment was behind the establishment of Earth Day, in 1970. The United Nations Conference on the Human Environment (the Stockholm Conference), which took place two years later, in 1972, helped to institutionalize consideration of the environment within national governance structures around the world. That Conference cemented the political realization that environmental degradation was caused both by affluence and by poverty, affecting rich and poor nations equally, albeit in different ways. On the tenth anniversary of the Stockholm Conference, in 1982, Governments adopted the World Charter for Nature, which reflected the interdependence of conservation and development.

5. As a follow-up to the Stockholm Conference, Governments established the World Commission on Environment and Development (the Brundtland Commission) to examine the concept of sustainable development. That concept is elaborated in the report of the Commission, "Our Common Future" (A/42/427, annex).

[1] See http://www.uncsd2012.org/rio20/index.php?page=view&type=13&nr=252&menu=46.

6. On the heels of "Our Common Future", Governments convened the United Nations Conference on Environment and Development, in 1994, to negotiate a global programme of action to achieve sustainable development worldwide. The outcome document of the Conference, known as Agenda 21, played a catalytic role in helping countries to operationalize sustainable development. In parallel to the two-year preparatory work for the Conference intergovernmental negotiating committees were established to formulate the framework conventions on biological diversity and climate change. The Conference also produced a set of agreed upon principles to protect forests and initiated negotiations to combat desertification and drought.

7. The underlying principle of the United Nations Conference on Environment and Development is explained in the first principle of the Rio Declaration: "Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature". Following the 1994 Conference the United Nations established the Commission on Sustainable Development to follow up on the implementation of Agenda 21, and in 2002 it convened the World Summit on Sustainable Development in Johannesburg, South Africa, to renew the global commitment to sustainable development. In June 2012, the United Nations Conference on Sustainable Development will be held to further assess the progress countries are making towards achieving sustainable development and to address new and emerging challenges to ensure a sustainable future for all in harmony with nature.

II. The evolving relationship of humankind with nature

8. The evolving relationship of humankind with nature varies greatly in Eastern and Western intellectual traditions. Its roots are originally found in philosophy and religion. Although Eastern intellectual traditions are historically distinct from Western ones, the basic questions the great thinkers of Asia tried to answer are similar to those that have occupied philosophers and religious leaders in Europe and the Americas — how can we give our life meaning? How can we find happiness? The insight and wisdom offered by Eastern and Western traditions provide opportunities for dialogue among civilizations and a deeper understanding of our relationship with nature. The following sections describe the evolving relationship of humankind with nature and how thinking about this relationship has influenced the development of environmental legislation in the twenty-first century. Lessons for achieving harmony with nature today are also considered.

A. Relevant lessons from ancient civilizations

9. Eastern traditions are often interpreted as presenting no sharp divide between creator and created animals, between humans and gods. In Hinduism, for example, there is a focus on metaphysics, including the concepts of samsara (reincarnation), karma (cosmic justice), moksha (liberation from the cycle of existence) and atman (inner ultimate reality).[2]

10. In cultural practices and thought systems in China, "external nature is never understood on its own terms; it is always intimately related with human life".

[2] Grant Hardy, "Great Minds of the Eastern Intellectual Tradition", The Teaching Company, 2011.

Chinese culture upholds the belief that reality consists of countless manifestations of one unbroken continuum, the tao. The Chinese developed a cosmological myth through which the universe was viewed as an organic system of inter-dependent parts. This view led to the assertion of fundamental unity of all things in their essential aspects.[2]

11. The ancient Egyptians, whose source of food depended on the annual flooding of the Nile, worshipped a number of deities, and their complex system of beliefs and rituals revolved around the environment in which they lived. The recognition of the fact that the Nile itself rendered their agricultural lands fertile, in contrast to the arid desert in which their dead were buried, shaped their identity and religious beliefs.

12. In African communities, natural phenomena were once perceived to possess spiritual powers, and the natural world that supplied food and shelter was respected and revered. Certain trees were considered God's trees, sacred and endowed with healing powers. Land belonged to clans consisting of the living, the dead, and even the unborn, a concept which enhanced the idea of sharing and caring for nature.

13. Early pre-Columbian cultures tracked the movements of the planets and stars, including the Sun and the Moon, and their movements became woven into every aspect of life, binding the mundane with the celestial. Throughout the Andes, Pachamama is the most widespread name for Mother Earth. The name, in its fundamental sense, means fertile and fruitful Mother Earth. Pachamama conveys the symbiosis between humankind and nature, thereby giving nature due respect.

14. In the Western tradition, Greek and Roman philosophers had a clear concept of the laws of nature, as opposed to man-made law. Recognizing that people existed prior to the establishment of civil order and government, they made a clear distinction between natural law (*jus naturale*) and common law (*jus commune*).

15. Many classical Western thinkers pointed out that earlier civilizations had a more intimate and balanced relationship with nature. The Romans, for example, believed in the rights of animals (*jus animalium*), what philosophers would later consider as natural rights, which are independent of human civilization and government. After the decline of Greece and Rome and with the advent of Christianity, people increasingly came to see nature in the service of human beings. The value of the natural world came to be defined solely in terms of its capacity to fulfil human needs.[3]

16. The concept that air, water and fish are held in common for use by all was codified into law by the Romans. In A.D. 535, at the order of the Emperor Justinian, the *Corpus Juris Civilis* (body of civil law) was issued and existing Roman law was collected into a simple and clear system of laws. The first Justinian Code was completed in A.D. 529 and was later expanded to include Justinian's own laws, as well as two additional books on other areas of law. The Justinian Code, the first body of law relating to the environment, asserted that the law of nature is that which nature teaches to all animals, that is, it does not pertain exclusively to the human race, but to all life forms, whether of the earth, the air or the water.

17. With the fall of the Roman Empire the legal system prevailing in Europe became fragmented, and with the emergence of local regimes, a patchwork of feudal

[3] Roderick Frazier Nash, *The Rights of Nature: A History of Environmental Ethics*, University of Wisconsin Press, 1989.

laws, which in many cases included a combination of civil law and cannon law, constituted the only legal framework on the continent. It would not be until the introduction of the Napoleonic Code, in the post-feudal era, that there would be another such coherent body of law in Europe. The Napoleonic Code took the place of the disparate legal systems of feudal times and became one of the major pillars of the expansion of the Romano-Germanic legal tradition throughout Europe and the rest of the world.

B. The emergence of the environmental movement: sixteenth to nineteenth centuries

18. In the evolution of medical science that took place in the seventeenth century, vivisection was widely used to study the workings of the body. The practice angered early humanitarians, and vivisectionists turned to Rene Descartes (1596-1650) to justify their research methods. A celebrated mathematician, physiologist and psychologist, Descartes provided a general philosophy of the irrelevance of ethics to the relationship between man and nature.

19. Animals, according to Descartes, were insensible and irrational creatures, living things with no sensation of pain: lacking minds, they could not be harmed, did not suffer and had no consciousness. Humans, on the other hand, had souls and minds. Thinking, in fact, defined the human organism. "*Cogito ergo sum*" (I think, therefore I am) was Descartes' basic axiom. This dualism, the separation between human beings and nature, justified vivisection and any human exploitation of the environment. Descartes left no doubt that people were the "masters and possessors of nature". Descartes believed that the objectification of nature was an important prerequisite for the progress of science and civilization.[3]

20. In the sixteenth and seventeenth centuries, other contemporary scholars in Europe, including Gottfried Leibnitz, John Ray and Baruch Spinoza, disagreed with Descartes, believing that nature and the wilderness were imbued with spiritual values, and that humans could not, therefore, be separated from nature. In 1790, the writer John Lawrence noted that the lack of recognition of the rights of animals, *jus animalium*, was a fundamental human defect, and he called for full recognition of this concept, while for Thomas Hobbes, man, in the state of nature, sought self-preservation at all costs, as his "right of nature".

21. At the height of Descartes' influence in Europe, the early American settlers held an opposing view, believing that animals were not merely dumb beasts meant for a life of suffering. This alternate, but minority view was derived, in part, from the classical Greco-Roman idea that animals were part of the state of nature and subject to natural law. This idea was advanced by the early settlers in New England, who enacted a law which acknowledged the rights of non-human beings. The "Massachusetts Body of Liberties" published in 1641 in the Massachusetts Bay Colony, is the earliest general law forbidding cruelty to domestic animals in Anglo-American jurisprudence.

22. In his book, *Some Thoughts Concerning Education* (1693), John Locke reasoned, in opposition to Descartes, that animals can experience pain and suffering, and that harming them needlessly is morally wrong. In his 1693 discourse, Locke moved beyond a strict concept of utility, in which not only customarily owned and useful animals like cattle and horses should be well treated, but also squirrels, birds,

insects and, indeed "any living creature".[4] Between the sixteenth and nineteenth centuries, encouraged by the writings of people like Nathaniel Ward and John Locke, the seeds of an alternate worldview where humans were an integral part of nature were planted. In his 1691 publication, *The Wisdom of God manifested in the Works of Creation*, the English botanist John Ray argued that animals and plants exist to glorify God and that their right to life do not depend on their usefulness to man.

23. John Ray and Baruch Spinoza, among others, were writing during a time of rapidly widening scientific horizons and related challenges to anthropocentrism. Telescopes suggested that the earth was not the centre of the universe. The microscope revealed a complex community on which mankind seemed to depend rather than the other way around. Explorers revealed the existence of vast uninhabited wilderness that was teeming with different forms of life, perfect and complete in and of themselves and, never even seen by humans. The more human beings learned about nature, the more difficult it became to entertain the notion that the universe existed solely for them. No longer were people considered as the masters of nature, but rather as members of the natural community.

24. In the 1660s, Louis XIV's Minister Jean-Baptiste Colbert introduced and enforced the strictest forestry laws in the history of France.[5] In 1822, in the United Kingdom, Richard Martin's activism led to the protection of large domesticated animals, notably cattle (Martin's Act). Two years later, Martin, William Wilberforce, and others created the Royal Society for the Prevention of Cruelty to Animals. Twenty years earlier, Wilberforce had been a leader in the fight to abolish slavery and the slave trade. John Stuart Mill, a pre-eminent nineteenth century philosopher, wrote that the laws making it a crime for parents to abuse their children should also be extended to animals. The idea of liberating oppressed beings was not easily confined to humankind.

25. Charles Darwin (1809-1882) shocked the conceit of humanity by placing human evolution alongside that of animals, that is, as part of nature. The evolutionary explanation of the proliferation of life on earth undermined dualistic philosophies thousands of years old. Darwin's works, *The Origin of Species* (1859) and *The Descent of Man* (1871), became important sources in the development of environmentalism and environmental ethics. Dietrich Brandis, a German scientist, pioneered forestry management in India and mentored many foresters, including Henry Graves, as well as Gifford Pinchot, who would later head the United States Forest Service.[6]

26. The struggle for humanitarian legislation in the United Kingdom reached a high point in 1876 with the passage of the Cruelty to Animals Act. Vivisection was an issue which elicited strong opinions from the leading members of the scientific and humanitarian communities in the United Kingdom. The nineteenth century saw significant advancements for the institutionalization of humanitarian values and rights into law. Heretofore, societies and their accompanying laws had usurped the rights of all around them for the gain of elites.

[4] James L. Axtell, ed., *The Educational Writings of John Locke: A Critical Edition with Introduction and Notes*, Cambridge University Press, London, 1968.

[5] Paul Walden Bamford, "French Forest Legislation and Administration, 1660-1789", *Agricultural History*, vol. 29, No. 3, 1955.

[6] Obituary: Sir Dietrich Brandis, F.R.S., *The Geographical Journal*, vol. 30, No. 1, 1907.

27. Although anthropocentrism was questioned, many people remained convinced that human beings, as the most advanced form of life, would continue to exploit other beings and to extract what they wanted from the environment. The point was made that they should do so carefully, according to the principles of good stewardship, and always mindful of the fact that other interests, including religious interests, were involved. From that point of view, the impact of people on the planet carried with it some disturbing ethical problems.

28. Since in Europe, for the most part, the wilderness had been transformed, there was increasing concern that the new world, the Americas, would follow suit. Writers such as the French thinker and historian Alexis de Tocqueville and the Dutch Lutheran minister and author John Bruckner wrote about this foreseeable trend, predicting the widespread slaughter of wildlife, some species to the point of extinction. By the eighteenth century, people in the United States had begun to protest against cruelty to animals, including vivisection, cock-fighting, staged fights with dogs, and fox hunting, among other forms of purposeless brutality. This activism to advance environmental rights represented a persistent and growing respect for the spiritual, cultural and restorative values of nature. The environmental movement had begun in earnest.

29. Around the same time that the environmental movement in the United States was taking hold, so too were other social movements, notably the movement for women's rights. This is no coincidence. Prominent figures, including John James Audubon, John Muir, Lewis Mumford, Gifford Pinchot, Henry S. Salt and Henry David Thoreau, who were able to mobilize powerful individuals and money and to popularize aesthetic values, played a key role in catalysing the environmental movement in America. A pioneer of the concept of biodiversity, Mumford inspired many writers, for example, in the East, Ramchandra Guha, the Indian environmental and social commentator.

30. Despite the fact that they were not tightly organized as a social movement, ti ese elites nonetheless formed a loosely linked network of influential people who were calling for wilderness protection. In the mid-1800s, as Thoreau was advocating the establishment of protected areas, many other individuals were separately arguing for the same goal. After a visit to Yosemite, California, in 1863, Frederick Law Olmsted and I. W. Raymond petitioned the United States Congress to preserve the area in its natural state. The bill for the preservation of Yosemite was approved in 1864, setting aside 10 square miles "for public use, resort and recreation".

31. From the sixteenth and to the nineteenth centuries, calls for the protection of animals and their rights as well as the protection of their environment increased, catalysed by a growing ideology of humanism and humanitarianism that paralleled similar calls for the end of slavery, the enactment of child labour laws and recognition of women's rights. In the late eighteenth century, the French Revolution would mark the consolidation of the concept of the rights of man in Europe and around the world.

32. In the United States, at the turn of the century, Edward Payson Evans (1831-1917) made the first extensive statement of what would come to be called environmental ethics. For Evans, non-human life forms, including every "sensitive" living thing, even inanimate objects such as rocks and minerals, have intrinsic rights that humans ought to not violate. In Russia, Peter Kropotkin and Leo Tolstoy and in

India, Mahatma Gandhi all made environmental protection an integral part of their world view.

33. Scholars in the Eastern intellectual tradition were also concerned in earlier centuries with the evolving relationship of humankind with nature. The Chinese philosopher Wang Yangming (1472-1529) advanced the "heart and mind" concept, which, in contrast with Descartes' dualism, encapsulated the connection between the mental process and the body. In his understanding, the concept of the mind is not reduced to one's self, but starts with one's self and flows to other people and from people to animals and from animals to trees and plants, and thence to stones and material things.

C. The twentieth century and human reconciliation with nature

34. Whereas in the nineteenth century, environmental protection was largely advanced for utilitarian purposes, be it for food, timber or shelter, the scientific basis for the need to protect the environment and its natural resources gained significant ground in the twentieth century. Scholars and scientists developed new concepts describing the importance of interconnectedness and the balance of life on Earth.

35. Frederic E. Clements (1874-1945) investigated what he called the "succession" of plants. He understood that many living things function together, and that the whole was more than the sum of the parts; plants interrelate with the climate, soil and with each other to form a natural environment, for example, a grassland habitat. The Scottish scientist J. Arthur Thompson (1861-1933) also described his concept of the web of life, and Victor E. Shelford (1877-1968) set out his understanding of the biome. Liberty Hyde Bailey (1858-1954) advocated abandoning "cosmic selfishness" and developing a sense of "earth righteousness". Because of the holistic orientations of their discipline, these early ecologists frequently connected their scientific research to moral philosophy.

36. In 1927, Charles Elton (1900-1991) coined the phrase "food chain". His ecological research revealed nutritional dependencies that started with the life force provided by the sun to plants, to plant eaters and to carnivores. Elton used the metaphor of a pyramid: the simplest organisms with the shortest food chains were the most numerous and, at the base of the structure, the most important. Remove the top of the food pyramid, a hawk or a human, and the system was hardly disturbed. But take away the simplest organisms at the base, such as plant life or soil bacteria, and the pyramid would collapse.

37. Philosophy and theological inquiry also informed environmental conservation ethics. Nobel Laureate Albert Schweitzer (1875-1965) considered that a reverence for life was a sufficient rationale for valuing the environment. From his study of the ethical teachings of the Indian and Chinese traditions, Schweitzer extended a theory of value based on the "will to live", which included humans and all living beings. He believed that human beings should give all creatures with a will to live the same reverence for life that they give to their own. Alfred North Whitehead (1861-1947) added to this idea, contending that the identity and purpose of every object in the universe arose from its relationship to everything else. Every organism, indeed every atom, had intrinsic value if only for the contribution it made to the ongoing reality of the interlocking pieces that make up the world. In calling for the

preservation, promotion and enhancement of life. Schweitzer placed animals on the same footing as humans.

38. Aldo Leopold (1887-1948), an American scholar, also contributed to development of environmental ethics, reinforcing and further expanding the argument that the earth, as the source of our physical existence, was worthy of ethical consideration. Whereas past humanitarians were concerned with living things, Leopold argued that the oceans and mountains, while inorganic, were equally important components of the inter-connected and living Earth. Russian philosopher Peter D. Ouspensky (1878-1947) supported Leopold's arguments, stating that "there can be nothing dead or mechanical in nature ... life and feeling ... must exist in everything".[7] These thinkers believed that, although hidden from humans, everything in the universe had a purpose and an essence.

39. Leopold called for an ethical relationship between man and nature, stressing that a strictly economic posture towards nature created serious ecological and ethical problems. "We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect".[8] In his view, the earth was alive, "vastly less alive than ourselves in degree, but vastly greater than ourselves in time and space". In the 1950s Pulitzer Prize winner and bacteriologist René Dubos (1901-1982) explained the importance of micro-organisms, including germs and their accompanying diseases, as part of the natural harmony of the Earth.

40. Rachel Carson, in her landmark study on the environment, *Silent Spring* (1962), chronicled the harmful effects of pesticides on man and nature. Carson helped make people understand that mankind's growing ability to dominate and control nature could prove to be counterproductive. Humans needed what she called "humbleness" and an ethic that stressed "sharing our earth with other creatures".

41. For Edward O. Wilson, the study of insects that exhibit social ties, such as ants and bees, led to a concern for kinship ties and ethical responsibility. Wilson reasoned that human survival is threatened by the loss of biological diversity. While the utility of certain species may not yet have been determined, this does not mean that they do not have value, including the possibility that some may be used in the creation of new medicines. Wilson's biophilia explained human's psychological connection to the environment, complementing and rounding out other explanations of human dependence on the natural environment for survival.

42. By the end of the twentieth century, humankind, while still holding an underlying anthropocentric view of nature, had fully embraced the existence of nature in all its forms: animals, plant life, rocks, ecosystems, the planet and the Universe. Thus a fragmented approach to human existence was gradually replaced by a holistic concept of sustainable development.

43. As we renew our commitment to the concept of sustainable development, it is important to reflect upon some of its key achievements. The work accomplished by the men and women who contributed to the United Nations Conference on Environment and Development at the close of the twentieth century is a legacy to

[7] Peter D. Ouspensky, *Tertium Organum*, Knopf, New York, 1981.

[8] Aldo Leopold, *A Sand County Almanac*, Oxford University Press, Oxford, 1949.

however as we carry forward the torch to which future generations will look for inspiration.

III. Promoting harmony with nature in the twenty-first century

A. The enabling role of legislation and public policy

44. The 27 principles contained in the Rio Declaration of 1992 have guided the international community in its efforts to achieve sustainable development in harmony with nature. They have inspired decision makers, scientists, researchers, environmentalists, writers and members of civil society in their journey to consolidate sustainable development worldwide. The principles have further enabled humankind to deepen its understanding and interaction with nature and, today, stakeholders have access to mechanisms to protect and defend nature.

45. The empathy of humankind with nature is clearly manifested in numerous legal systems worldwide. In the space of 20 years many Member States have incorporated the principles embodied in the Rio Declaration into national legislation either through constitutional provisions or general provisions in sectoral laws. The following examples illustrate some of the instruments that stakeholders have at their disposal.

46. In 2001, the Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters (the Aarhus Convention) was adopted under the aegis of the Economic Commission for Europe. Although regional in scope, the convention is considered global in its significance, specifically in the recognition that Governments can only achieve sustainable development through the involvement of stakeholders.

47. The Aarhus Convention establishes three sets of rights for the public, requiring public authorities to: (a) provide environmental information upon request from the public, including an obligation to collect and disseminate available environmental information to the public; (b) establish transparent and fair procedures allowing public participation in environmental decision-making, including in the preparation of plans and programmes relating to the environment or in the drafting of executive regulations and other generally applicable legally binding rules that may have a significant effect on the environment; and (c) establish procedures guaranteeing the public access to information or participation and the right to challenge illegal acts and omissions by private persons and public authorities, including denial of access to environmental information, that contravene provisions of national laws relating to the environment.[9]

48. Regional agreements provide detailed standards on how to frame wildlife regulation at the national level. Environmental legislation within the European Union requires a timely and effective integration of its rules into national legislation by its member States. The existence of a judicial system able to impose financial penalties for lack of implementation for enforcement, to which all member States are subject, strengthens the obligations that derive from such legislation.[9]

[9] Elisa Morgera, "Wildlife law and the empowerment of the poor", Food and Agriculture Organization of the United Nations, Rome, 2010.

49. In Africa, several regional agreements have direct or indirect relevance for wildlife management and should be taken into account by legal drafters in the States parties to them. For example, the African Convention on the Conservation of Nature and Natural Resources was originally concluded in 1968 in Algiers and was then revised in Maputo in 2003 by the Assembly of the African Union. The overall objective of the revised convention is the conservation and management of animal and plant species and their environment. To conserve animals, particularly threatened species, States parties must adopt policies and management measures for the sustainable use and the conservation of those species both in and outside their natural habitats. Continued scientific research and monitoring will guide management of the species and their environment.[9]

50. The Convention on Conservation of Nature in the South Pacific of 1976 (the Apia Convention) established a broad framework for nature conservation in the South Pacific region, particularly in relation to migratory and endangered species and the preservation and management of wildlife habitat and terrestrial ecosystems. The convention includes provisions for the establishment of protected areas and calls upon States parties to prohibit the hunting and commercial exploitation of such species in national parks and to maintain lists of indigenous fauna and flora at risk of extinction for their full protection (article 5), in accordance with traditional cultural practices.[9]

51. The 1985 Agreement on the Conservation of Nature and Natural Resources of the Association of Southeast Asian Nations has the objectives of maintaining essential ecological processes and life-support systems, preserving genetic diversity and ensuring the sustainable utilization of harvested natural resources. It also addresses public participation in planning and implementation of conservation measures.[9]

52. Access to justice is one of the pillars of legal empowerment. It increases accountability and protects rights, including rights to public participation. Article 9 of the Aarhus Convention deals with access to justice and states that the public should have access to administrative and/or judicial procedures to challenge illegal acts and omissions relating to the environment. This includes the right to challenge official acts, including denial of access to environmental information.[9]

53. Legislation should assure access to justice in instances involving both private persons and public authorities in wildlife-related matters. Furthermore, the legislation should draw the bounds of official powers clearly, so that courts or administrative reviews have clear standards to apply. While general environmental legislation may serve this purpose, there are also examples of wildlife-specific provisions in this regard.[9]

54. While laws usually refer to general means for dispute resolution, stakeholders may need more specific provisions ensuring a fair and efficient process for resolving disputes, not only between users, but also between users and government entities. The right to challenge government decisions at administrative and judicial levels functions as a public accountability mechanism over the wildlife regulatory system. In addition, laws can set up alternative dispute resolution mechanisms, not only for the resolution of conflicts but also for their prevention. For example, mediators can help communities and wildlife agencies negotiate general agreements concerning protected area management or enforcement before specific conflicts arise.[9] Such mechanisms have proven to be preferable for the poor since they are more

accessible than courts, affordable, easily understood and effective (for example, the Commission on Legal Empowerment of the Poor of the United Nations Development Programme). In some instances, legislation may empower citizens to submit a complaint or request an injunction for violations of wildlife laws.[9]

55. In the United States, in accordance with federal wildlife laws, the public has the right to sue for destruction or injury to certain species of wildlife. To that end, a citizen must show personal injury rather than injury on behalf of the environment itself, causation and redress ability (see, for example, United States Supreme Court decision in Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc. (2000)). Redress of an injury can occur in the form of a sanction that effectively abates conduct that is proven to be injurious to the environment. However, the Endangered Species Act of 1973 provides a clear exception to this rule, providing the right to any private citizen to commence a civil suit on his or her own behalf to enjoin any person, including any governmental instrumentality or agency, from engaging in certain activities in violation of any provision of the act. In 1998, a United States law created the Institute for Environmental Conflict Resolution. The Institute maintains a roster, searchable online, of individuals trained and experienced as environmental mediators, including a special group of mediators who have experience with indigenous communities.[9]

56. While numerous agreements and cooperation mechanisms on the protection and enhancement of the environment have emerged in Latin America and the Caribbean, for example the annual International Convention on Environment and Development as well as the Convention for the Protection and Development of the Marine Environment, the strongest and most significant environmental laws in this region are implemented at the national and multilateral level.

57. The increasing number of specialized environmental courts and tribunals that resolve environmental issues, which have grown from only a handful in the 1970s to more than 350 in 41 countries, are making major strides in providing access to justice, environmental governance and protection of the environment around the world. The dramatic growth in the number of these courts is the result of the complexity of environmental laws and in public awareness of environmental problems. Environmental courts and tribunals have recently been created in Abu Dhabi, Bolivia (Plurinational State of), Chile, China, El Salvador, India, Thailand and the Philippines. It is foreseen that changes in environmental law will continue, driven by increasing demands from the public for "access rights" and increasing public concern about specific environmental issues, including climate change, sustainable development, extinction of species and loss of natural areas.[10]

58. The importance of and need for public participation, not only in governmental decision-making but also, more broadly, in the work of sustainable development, is at the core of Agenda 21 and the Rio Declaration. However, in spite of the commitment by different sectors of society, environmental degradation continues, poverty persists and financial crises recur. These are constant reminders of the weaknesses of viewing sustainable development efforts through a predominantly economic framework.

[10] George and Catherine Pring, *Greening Justice: Creating and Improving Environmental Courts and Tribunals*, The Access Initiative, 2009.

B. Nature: to have or to be?

59. Current consumption and production patterns worldwide are taking a heavy toll on the Earth and its resources. Indeed, the roots of many of our problems can be traced back to the evolution of our consumption patterns. The current cultural paradigm dominant in many parts of the world and across many cultural systems is consumerism, which encourages people to find meaning, contentment and acceptance primarily through the consumption of goods and services.[11]

60. Paradoxically, research shows that while consumerism is associated with the catering of psychological needs and the creation of instantaneous pleasure, there is evidence that consuming more is not necessarily linked to more happiness. Indeed, according to some psychological studies, money and well-being are related only until a certain point. While in less developed countries, lack of money has an effect on the well-being of the poorer sectors of society, it also appears that once people achieve higher incomes, additional increases have a small impact on well-being, "suggesting that added income beyond modest affluence no longer helps answer important desires and needs".[12]

61. One of the pillars of consumerism, the constant desire for more money and more goods, is inversely correlated to well-being among people of different social strata.[12] People get frustrated when they cannot afford the objects of their desire, but even when they can, their satisfaction is short lived. Psychologists have hypothesized that the toxic effects of materialism do not fulfil intrinsic human desires and lead to goals that can never be completely fulfilled.

62. Environmental scientist and systems analyst Donella Meadows has explained that the most effective leverage point for changing a system is to change its paradigm, that is to say, the shared ideas or basic assumptions around which the system functions. In the case of the consumerist paradigm, the assumptions that need to change include that more goods make people happier, that perpetual growth is good, that humans are separate from nature and that nature is a stock of resources to be exploited for human purposes.[11]

63. Just as a consumerist paradigm encourages people to define themselves and their well-being through their consumption patterns, a sustainability paradigm would work to find an alternative set of aspirations, and to reinforce it through cultural institutions and drivers. It should become "natural" to find value and meaning in life through how much a person helps to restore the planet rather than how much an individual earns, how large a dwelling is or how many material goods someone has.[13]

64. In general, the solutions that have been identified have focused on reducing emissions rather than preventing them, on creating new products to consume rather than in slowing down consumption, in producing green products rather than in producing less. "The reason that green technologies will not save us is that they are only part of the picture. Our collective impact on the planet ... results from a

[11] Donella Meadows, "Leverage Points: Places to Intervene in a System", The Sustainability Institute, 1999.

[12] Ed Diener, *The Science of Well-Being*, 2009.

[13] *State of the World 2010: Transforming Cultures: From Consumerism to Sustainability*, The Worldwatch Institute, 2010 (http://www.worldwatch.org).

combination of how many of us there are, what kind of technologies we use, and how much we are consuming."[14]

65. At present, scientists, intellectuals and other thinkers are looking into measures of well-being. Traditionally, States have used the gross domestic product (GDP) as an indirect indicator of national well-being. Broadly, the goal of most countries has been to increase the economic means of the population. Nevertheless, as psychologists are finding out, money does not always produce a sense of well-being. Well-being encompasses, inter alia, interpersonal relations, health and a clean environment, aspects which are not normally taken into account in the GDP.

66. In order to create indicators that could provide a more accurate reflection of the level of well-being of a population, alternative measures focusing on the redefinition of well-being and our common social purpose are being considered. Along with respect for the environment, "a new understanding of the good life can be built not around wealth but around well-being: having basic survival needs met, along with freedom, health, security and satisfying social relationships. Consumption would still be important but only to the extent that it boosts quality of life."[15] Additional indicators of sustainable development and a less consumerist society are not only possible, but essential.[15] It is necessary to change our current paradigm, which is grounded in the false premise that nature is an object that can be appropriated and exploited.

67. Today we are experiencing what has been called the "double burden of malnutrition": while there are close to a billion[16] malnourished people in the world, we also have an increase in a number of health problems associated with obesity. It has been calculated that the world is producing enough food to provide every person with 2,700 calories a day, which is 600 calories more than the recommended amount for adults.[17] It is also estimated that one third of the world's food produced for human consumption is lost or wasted each year. While rich countries waste food primarily at the level of the consumer, the main issue for developing countries is food lost because of weak infrastructure, including poor storage, processing and packaging facilities that lack the capacity to keep produce fresh. Food wasted by consumers in rich countries (222 million tons) is roughly equal to the entire food production of sub-Saharan Africa (230 million tons).[18]

68. The World Health Organization (WHO), in its first Global Status Report on Non-communicable Diseases, has confirmed that 36.1 million people died from such causes in 2008. The four main non-communicable diseases, cardiovascular disease, cancer, chronic lung diseases and diabetes, kill three in five people worldwide, and cause great socio-economic harm within all countries, particularly developing nations. Clearly non-communicable diseases are on the increase, and many of their origins

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[14] Annie Leonard, *The Story of Stuff*, Simon and Schuster, New York, 2010.

[15] *State of the World 2004: Special focus: The Consumer Society*, The Worldwatch Institute, 2004 (http://www.worldwatch.org).

[16] In 2010, the number of malnourished people in the world was 925 million. That number rose to 1.023 billion in 2009 owing to multiple crises. This marginal improvement in 2010 is being threatened by a surge in food prices in the later half of 2010. See *The State of Food Insecurity in the World 2010*, Food and Agriculture Organization of the United Nations, Rome, 2010.

[17] "How much is enough?", http://www.economist.com/node/18200702.

[18] *Global Food Losses and Food Waste*, Food and Agriculture Organization of the United Nations, Rome, 2011.

can be traced back to poor eating habits (cardiovascular and diabetes), smoking and exposure to toxic chemicals and carcinogenic substances (cancer and respiratory diseases), among other causes. To promote collective action against the epidemic, the General Assembly will convene a High-level Meeting on Non-communicable Diseases on 19 and 20 September 2011.

69. Human beings, like the Earth, are losing their capacity to live in homeostasis, which is the ability of an organism or cell to maintain equilibrium, to regulate its internal conditions, for example the chemical composition of its body fluids, in order to maintain health and functioning, regardless of outside conditions. Without proper balance, even a healthy diet will fail to provide nutrients the body needs. We are not what we eat we are what we metabolize and this also holds true for the Earth. The Earth's topsoil, its living plasma, which is essentially non-renewable, has been sloughed off at a rate of five to one hundred tons per acre per year, and contamination is taking an additional toll.

70. At present, humankind, by eroding the foundations of its source, Mother Earth, has put its very existence at risk.

71. As natural disasters become stronger, more frequent and hit wider areas, the devastation and suffering the elements inflict act as portents of the future. In the light of the natural disasters that hit Japan in March 2011, the country's energy plan is being re-examined and a major shift in its sources of energy, from nuclear to alternatives, is being considered. Countries like Germany and Switzerland have also announced the phasing-out of nuclear plants in favour of renewable energy by 2022 and 2034, respectively.

72. If we are to avoid catastrophe, current world conditions leave no doubt that a major change is required in the way that human beings relate to the three pillars of sustainable development: environmental, social and economic. We have chosen to be defined in terms of things, and it is precisely things which are holding us back from reaching our full potential, from realizing our interrelatedness with nature, from advancing towards sustainable development and, ultimately, from living a life in harmony with nature.

73. By the dawn of the second millennium, a number of countries had already started to move away from the anthropocentric view of nature held over so many centuries. In New Zealand's Environmental Act of 1986, the essential value of nature was specified, as follows: "Ensure that, in the management of natural and physical resources, full and balanced account is taken of the intrinsic values of ecosystems".[19]

74. In Sweden, the preservation of biological diversity is one of the five objectives contained in the Environmental Code of 1999, which states "Biological diversity must be protected since the natural environment is worth protecting for its own sake. This means that the long-term productive capacity of ecosystems must be preserved. Biological diversity relates both to the diversity of ecosystems and the diversity of animal and plant species."[20] Finland's 2006 national strategy for sustainable development states that its goal is to assure people's well-being within the limits of the carrying capacity of nature both, nationally and globally.[21] Norway's Animal

[19] http://www.legislation.govt.nz/act/public/1986/0127/latest/DLM98975.html.

[20] See http://www.sweden.gov.se/content/1/c6/02/05/49/6736cf92.pdf.

[21] See http://www.ymparisto.fi.

Welfare Act, which came into force in January 2010, states, in article 3, "Animals have an intrinsic value which is irrespective of the usable value they may have for man. Animals shall be treated well and be protected from danger of unnecessary stress and strains".[22]

75. The newly adopted constitution of Ecuador (2008) states that the rights of nature should be taken into account in all planning activities, including: the right to have its existence respected in an integral manner, including the maintenance and regeneration of its cycles, functions and evolutionary processes; and the right to restoration.[23] On December 2010, the Plurinational State of Bolivia adopted a new Law of the Rights of Mother Earth, granting her the following seven rights: the right to life and to exist; the right to not have cellular structure modified or genetically altered; the right to pure water; the right to clean air; the right to balance; the right to continue vital cycles and processes free from human alteration; and the right not to be polluted.[24]

IV. Conclusion

76. Modern, post industrial society has become materialistic and consumerist based upon the illusory promise of unlimited happiness, material abundance and domination of nature. Since the industrial age, the economic system that has been developed has not been determined by what is good for people, much less for nature, but rather by what is good for the growth of the economic system. In such a system, nature, our source and the sustenance of our existence, has been ignored and exploited. In our blindness, we have undermined the amazing abilities, the abundant nutrients and energy given us by Mother Earth to sustain both the Earth, in her regenerating capacity, as well as our human existence.

77. As recurrent financial crises constantly remind us, a socio-economic system based on material growth is not sustainable, just as striving for infinite growth in a world of finite resources is contradictory. We need to transform our society into one in which all forms of life are revered. Only such a society can truly be wholesome. In order to achieve this, we must revisit not only the existing economic paradigm but also the moral values that support it. Wealth, knowledge and technology make valuable contributions. But they alone will not save humankind from its excesses and its deleterious impact on Mother Earth. We are witnessing an accelerating deterioration of the health of our Mother Earth. We must accept that we ourselves are an intrinsic part of nature. By contaminating and depleting Mother Earth, we are also contaminating and depleting ourselves. We are contributing to the forces and imbalances that cause the increasing natural disasters that are affecting us.

78. As we prepare to convene the United Nations Conference on Sustainable Development, changing how we behave on the planet will require a major shift in values. Our survival depends on the wise choices of how we coexist with Mother Earth. Experts tell us that we are collectively consuming, each year, one third more resources that can be regenerated by the Earth herself in a single year. World

[22] See http://www.regjeringen.no.

[23] See http://pdba.georgetown.edu/constitutions/ecuador/ecuador.html.

[24] See http://www.gacetaoficialdebolivia.gob.bo/normas/.

consumption and production needs to converge towards a sustainable range, with developed countries taking the lead.

79. We need to accept nature as our source of guidance to create an economic system that is both morally and scientifically sound. We need to accept nature as our source of guidance for ending the poverty afflicting so many millions of people for whom the world remains wide and alien. We need to accept nature as our source of guidance for ending our paucity of spirit so that we can learn to live below our means and within our needs. We need to reintegrate with nature in a way that we have not yet done. Nature and her intrinsic value must be revered and honoured. We must finally realize that in order to reinforce the cause of sustainable development we must work to render each one of its pillars, environmental, social and economic, whole.

80. Along with reverence for nature as our guide, it is to our spirit that we must turn in order to advance in our journey towards sustainable development. We must look at the bedrock of our intrinsic human values, at the intentions behind our actions. As we honour the legacy of the innumerable people who have sought throughout history to achieve a wholesome society, we must, in turn, recognize our gratitude for their work. Mankind has a history of ten thousand years, and all of humankind is involved in this journey together. Let us create a new calendar, a global consciousness of reverence for nature, let us draw upon the wisdom of ancient civilizations to live in harmony with nature. As we renew our commitment to sustainable development, let us not lose sight of the fact that we should be remembered as the generation that created a consensus at the United Nations Conference on Sustainable Development, which restored civilization to its roots, in harmony with its source: Mother Earth.

V. Recommendations

81. Drawing on the foregoing discussion and on views expressed at intergovernmental meetings as well as major group consultations on Harmony with Nature, States may wish to take into account the following recommendations:

(a) To consider a declaration recognizing nature's intrinsic value and its regenerating capacity, in the context of the United Nations Conference on Sustainable Development in June 2012;

(b) To further update the knowledge base on Harmony with Nature, the General Assembly should continue to invite, as appropriate, representatives of institutions, organizations, research centres and academia, as well as Nobel laureates, to provide briefings for decision makers, inter alia, on the themes addressed in the present report;

(c) To continue showcasing, through the United Nations sustainable development websites, the work being undertaken to advance development for all in Harmony with Nature, integrating the economic, social and environmental pillars.